

Practitioner's Docket No. SST/0816

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



Re application of: Alfred D. Commins, Robert C. Gregg, William F. Leek, Karen W. Colonias, and Arthur R. Linn

Application No.: 08/975,940

Group No.: 3637

Filed: November 21, 1997

Examiner: Lanna Mai

For: Building Wall for Resisting Lateral Forces

Mail Stop RCE

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

## List of Sections Forming Part of This Information Disclosure Statement

The following sections are being submitted for this Information Disclosure Statement:

1. Preliminary Statements
2. Forms PTO/SB/08A and 08B (formerly Form PTO-1449)
3. Copies of Listed Information Items Accompanying This Statement
4. Concise Explanation of English Language Listed Information Items (Optional)
5. Identification of Person(s) Making This Information Disclosure Statement

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Express Mail certification is optional.)*

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**Section 1. Preliminary statements**

Applicants submit herewith patents, publications or other information, of which they are aware that they believe may be material to the examination of this application, and in respect of which, there may be a duty to disclose.

The filing of this information disclosure statement shall not be construed as a representation that a search has been made (37 C.F.R. § 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability, or that no other material information exists.

The filing of this information disclosure statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 1135 O.G. 13-25, at 25.

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Substitute for form 1449A/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

**(Use as many sheets as necessary)**

Sheet	1	of	1
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**Complete if Known**

Application Number	08/975.940
Filing Date	11/21/1997
First Named Inventor	Alfred D. Commins
Art Unit	3637
Examiner Name	Lanna Mai
Attorney Docket Number	SST/0816

## U. S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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**Complete if Known**

Application Number 08/975,940

Filing Date 11/21/1997

First Named Inventor Alfred D. Commins

Art Unit 3637

Examiner Name Lanna Mai

Attorney Docket Number SST/0816

Sheet

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of

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**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials <sup>*</sup>	Cite No. <sup>1</sup>		T <sup>2</sup>
		SIMPSON STRONG-TIE COMPANY, INC., "LTP/A34/A35 Framing Anchors," Simpson Strong-Tie Connectors, Simpson Strong-Tie Company, Inc. (U.S.A.), numbered page 58, (1995).	
		SIMPSON STRONG-TIE COMPANY, INC., "CS/CMST Coiled Straps," Simpson Strong-Tie Connectors, Simpson Strong-Tie Company, Inc. (U.S.A.), numbered page 56, (1995).	
		EDWARD L. KEITH, P.E., "153 Big Bin: Performance and Testing," Research Report American Plywood Association, American Plywood Association (Tacoma, Washington U.S.A.), front cover, numbered 1-24, back cover, (May 1990).	
		Ben L. Schmid Calculation Sheet, "Apartment Bldgs Seismic Strengthening," total of 1 page, (July 30, 1994).	
		JOHN R. TISSELL, P.E AND JOHN D. ROSE, "146 Roof Diaphragms for Manufactured Homes," Research Report American Plywood Association, Technical Services Division, American Plywood Association (Tacoma, Washington U.S.A.), front cover, numbered pages 3-30, back cover, (Revised September 1993).	
		AMERICAN PLYWOOD ASSOCIATION, "Stapled Sheet Metal Blocking for APA Panel Diaphragms," Technical Note American Plywood Association Number N370B, American Plywood Association (Tacoma, Washington U.S.A.), total of page 1, printed both sides (Revised November 1993).	
		AMERICAN PLYWOOD ASSOCIATION, "Materials Handling," APA The Engineered Wood Association Industrial Use Guide, American Plywood Association (Tacoma, Washington U.S.A.), front cover, numbered pages 3-54, back cover (Revised January 1995).	
		AMERICAN PLYWOOD ASSOCIATION, "The Produce Protector Making a Case for Plywood Harvest Bins," APA The Engineered Wood Association, American Plywood Association (Tacoma, Washington U.S.A.), total of 1 page, printed both sides (May, 1996).	
		AMERICAN PLYWOOD ASSOCIATION, "A Test of Time Plywood Harvest Bins Span Three Decades in Use," APA The Engineered Wood Association, American Plywood Association (Tacoma, Washington U.S.A.), total of 1 page, printed both sides (November 1996).	
		AMERICAN PLYWOOD ASSOCIATION, "APA Collapsible Bin Design and Fabrication," APA The Engineered Wood Association, American Plywood Association (Tacoma, Washington U.S.A.), front cover, numbered pages 2 and 3, back cover, (February 1997).	
		AMERICAN PLYWOOD ASSOCIATION, "Plywood for Tobacco Storage," APA The Engineered Wood Association, American Plywood Association (Tacoma, Washington U.S.A.) total of 1 page, (at least as early as 1997).	
		Provisional Application, "Shear Panel Joint," filed May 9, 1997, Charles H. Utzman, total of 23 pages.	

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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**Complete if Known**

Application Number	08/975,940
Filing Date	11/21/1997
First Named Inventor	Alfred D. Commins
Art Unit	3637
Examiner Name	Lanna Mai
Attorney Docket Number	SST/0816

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

Use as many sheets as necessary)

Sheet

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of

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**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		ALFRED D. COMMINS AND ROBERT C. GREGG, "Cyclic Performance of Tall-Narrow Shearwall Assemblies," total of 12 pages, (April 5, 1994).	
		FOREST PRODUCTS SOCIETY, "Earthquake Performance and Safety of Timber Structures," Forest Products Society (Madison, WI), (1997).	
		DONALD E. BREYER, "Design of Wood Structures," 3rd Ed., Chapter 8, Plywood and Other Structural-Use Panels, McGraw-Hill, Inc. (New York, NY U.S.A.), front page, back page and page 434.	
		SIMPSON STRONG-TIE COMPANY, INC., "Wood Construction Connectors," Catalog C-97, Simpson Strong-Tie Company, Inc. (U.S.A.), front page, back page and page 53, (January 1, 1997).	
		Typical CS Installation as a Floor-to-Floor Tie with Strap Attached Over Plywood, total of 1 page.	
		DONALD E. BREYER, "Design of Wood Structures," 3rd Ed., Chapter 10, Shearwalls, McGraw-Hill, Inc. (New York, NY U.S.A.), front page, back page, and page 497-532.	

Examiner  
SignatureDate  
Considered

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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**Section 3. Copies of Listed Information Items Accompanying This Statement**

Legible copies of all items listed in Forms PTO/SB/08A and 08B (substitute for Form PTO-1449) accompany this information statement.



#### Section 4. Concise Explanation of English Language Listed Information Items

##### Non-patent literature relating to stapled sheet metal blocking

The following references teach using sheet metal strips as substitutes for lumber blocking at the joints of structural panels:

American Plywood Association Technical Note # N370B, *Stapled Sheet Metal Blocking for APA Panel Diaphragms*, November 1993; and  
Tissell, John R., and Rose, John D., American Plywood Association Research Report # 146, *Roof Diaphragms for Manufactured Homes*, September 1993.

##### Non-patent literature relating to bales and bins made from plywood that utilize metal corner angles, steel channel edging and metal straps

- American Plywood Association Industrial Use Guide, *Materials Handling*, Revised January 1995

This publication relates to forming mezzanine floors, pallets, pallet bins, bins, liquid tanks, crating and shelving from structural panels such as plywood and oriented strand board. Beginning with the section on pallet collars at page 20, the publication teaches that metal hardware can be used with pallets, bins and crating to improve performance. The metal hardware includes hinges (page 21), corner angles (page 25), crate strapping (page 39), and steel strap reinforcing for lag screws (page 39).

- Mitzner, Raymond C., American Plywood Association, *Plywood For Tobacco Storage*, May 1978

This paper relates to forming bales for storing and transporting tobacco. On the drawing labeled TOBACCO BALE PLYWOOD PANEL, the paper teaches adding steel channel edging to the four edges of each panel. According to the paper, "The edge channels aid in carrying load, help keep panels flat and most importantly prevent straps from cutting into edges."

- American Plywood Association Data File, *APA Collapsible Bin Design and Fabrication*, 1997
- Keith, Edward L, American Plywood Association Research Report # 153, *Big Bin: Performance and Testing*, May 1990

These papers show corner angles.

- American Plywood Association Case Study, *The Produce Protector, making a case for plywood harvest bins*, May 1996.
- American Plywood Association Case Study, *A Test of Time, plywood harvest bins span three decades in use*, November 1996.

These two papers also show harvest bins.

#### Section 4. Concise Explanation of English Language Listed Information Items

**(continued)**

#### **ADDED PAGE**

##### Charles H. Utzman - Provisional Patent Application for Shear Panel Joint

A draft of this application was viewed by the inventor Alfred D. Commins prior to the filing of the present application, serial number 08/873,972. At the time Alfred D. Commins was told that the draft he reviewed had been filed with the United States Patent Office as a provisional utility application. The applicants' attorney has viewed the issued patent 5,870,870 and has compared it to the draft reviewed by Alfred D. Commins. The two are substantially similar with added material appearing in the non-provisional application that issued as United States Patent number 5,870,870.

Applicants are including this reference because the examiner may feel it is relevant. Applications citation of this reference should not be taken as an admission that it is prior art.

##### Ben L. Schmid calculation sheet, dated 10/4/94, subject: Apartment Bldgs Seismic Strengthening

Ben L. Schmid is a structural engineer. He shared the attached calculation sheet with one of the inventors — Alfred D. Commins.

The calculation sheet shows a method of reinforcing an existing wall in a building against lateral forces. The wall has an opening for a window in it. According to the method, the interior sheet rock of the existing wall is removed to gain access to the interior of the wall to add additional structural members.

The method includes the step of adding horizontal blocking to the wall. The horizontal blocking is placed just underneath the window opening. The blocking continues past either side of the window to the ends of the wall at the same height.

The blocking appears to be connected with a continuous 2" x 14 GA strap. The strap is attached to the blocking with #8 x 2" wood screws that are spaced approximately 3" on center.

The method also appears to include the step of laying structural plywood over the blocking, the strap and the other components added to the existing wall. It appears that four sheets of plywood are used. Two 4' x 8' panels overlay the portions of the wall on either side of the window. A 2.5' x 4' panel overlays the area underneath the window, and a 1' x 4' panel overlays the area above the window.

##### Typical CS Installation as a Floor-to-Floor Tie with strap attached over plywood

This drawing is best viewed in combination with a page from a printed publication also submitted herein. That publication is page 56 from the Simpson Strong-Tie Catalog of 1996, copyrighted 1995, showing the typical installation of a coiled strap as a Floor-to-Floor Tie.

This drawing is provided to let the examiner know that the CS strap shown in the Simpson Strong-Tie Catalog is often installed as a Floor-to-Floor Tie after the plywood or other structural panels has been mounted on the side of the building. The strap is then laid over the panel and attached with additional fasteners into the studs of the wall.



**Section 4. Concise Explanation of English Language Listed Information Items****(continued)****ADDED PAGE**United States Patent 6,643,986

Title: Diaphragm with Perimeter Edging on Structural Panels  
Filed: June 12, 1997  
Granted: November 11, 2003  
Inventors: Alfred D. Commins and Robert C. Gregg  
Assignee: Simpson Strong-Tie Company, Inc.

The present application and the above-identified patent disclose and claim related subject matter. Furthermore, the inventors for both the application and the above-identified patent have a duty to assign the invention to Simpson Strong-Tie Company, Inc., the common owner. In fact, assignments by the inventor to Simpson Strong-Tie Company, Inc. for both have been recorded in the United States Patent Office.

The present application relates to a specific type of building wall that has installed within it a sub-component shear resisting assembly. Means for reducing bending of the perimeter fastener, referred to as boundary edging members in the present application, can be a part of the sub-component, shear resisting assembly, as is called for in claims 43 and 47.

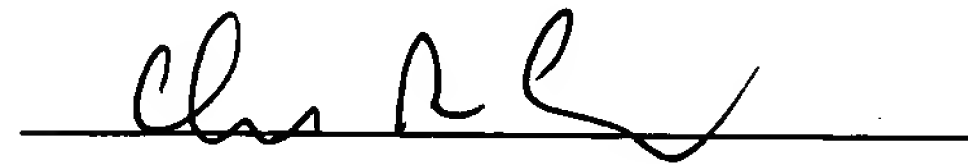
The above-identified patent relates to an improved connection using means for reducing perimeter fasteners that is part of a diaphragm for resisting lateral forces. All of the claims of the above patent relate to the means for reducing bending of the perimeter fasteners.

**Section 5. Identification of Person Making This Information Disclosure Statement**

The person making this certification is:

- a. the practitioner who signs below on the basis of the information in the practitioner's file.

Date: March 16, 2004



Charles R. Cypher  
Registration No. 41,694  
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405 14th Street, Suite 400  
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